

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Detlef Cieslik et al.
Application Number: 10/534,204
Filing Date: January 20, 2006
Group Art Unit: 3785
Examiner: Ljiljana V. Ciric
Title: HEAT EXCHANGER FOR A REFRIGERATION DEVICE

Mail Stop Appeal Brief - Patents
Commissioner for Patents
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REPLY BRIEF

In response to the Examiner's Answer issued on March 31, 2011 for the above-identified application, Appellants provide the following comments in further support of the Appeal.

I. Claims 28 and 35

Claim 28 depends from claim 16 and recites a heat exchanger for a refrigeration device that includes a base plate, a tubular pipe for coolant attached to the base plate, and a sleeve arranged on the base plate for receiving a temperature sensor. Claim 28 recites that the sleeve is fixed on a surface of the base plate by at least one brace which is connected to the sleeve and engages on the cooling pipe. Claim 28 further recites that the tubular pipe and said sleeve are enclosed between said base plate and a film of deformable material.

Claim 35 depends from claim 30 and recites a refrigeration device that includes a heat exchanger including a base plate, a tubular pipe for a coolant attached to said base plate, and a sleeve arranged on said base plate for receiving a temperature sensor. Claim 35 recites that the sleeve is fixed on a surface of said base plate by at least one brace which is connected to said sleeve and which engages on said tubular

coolant pipe. Claim 35 further recites that the tubular pipe and the sleeve are enclosed between the base plate and a film of deformable material.

As fully explained in Appellants' Appeal Brief, Nam's sensor fixing bracket 30 is surrounded by a thick and substantially rigid insulating material 12 that fills the space between the outer wall 10 and the inner liner 14 of Nam's enclosure. The Examiner alleges that the Appellants comments regarding this insulating material in the Appeal Brief were contradictory. The Examiner points out that Appellants asserted that the insulating material is injected during manufacture, and that the insulating material is a thick, substantially rigid material. The Examiner questions how a substantially rigid material could be injected into the space located between the inner liner 14 and the outer wall 10 of the Nam enclosure.

As is extremely well known to those of ordinary skill in art, the material that forms the insulation 12 is injected into this space in a liquid form. As it cures, this material expands and hardens. Once cured, the material fills the space between the inner liner 14 and the outer wall 10, and the material becomes substantially rigid. Thus, not only were Appellants' comments accurate, they also were not contradictory.

Appellants maintain that this thick layer of substantially rigid insulating material 12 cannot possibly be considered a "film" when that word is given its ordinary meaning. Further, while all material could be considered deformable at some level, the substantially rigid insulating material 12 in the Nam device is not deformable like film would be. Figure 2 of the present application illustrates an embodiment as recited in claims 28 and 35 in which a deformable film 3 conforms to the curved surfaces of the coolant pipes 2, the temperature sensor 6, the sleeve 7 and clamping sections 9. In contrast, the thick, substantially rigid insulating material 12 in the Nam enclosure cannot possibly deform like a film. In fact, any attempt to deform the insulating material 12 in the Nam enclosure in a similar fashion would crush and partially destroy Nam's insulating material 12.

For all the above reasons, when the "deformable film" recited in claims 28 and 35 is given a reasonable interpretation using the plain and ordinary meaning of those words, and in light of the disclosure of the present application, this feature cannot be read upon the thick, substantially rigid layer of insulating material 12 in Nam.

Accordingly, it is respectfully submitted that the rejection of claims 28 and 35 should be withdrawn.

II. Claim 36

In the Examiner's Answer, the Examiner indicates that he did not intend to reject claim 36 over the Nam reference. This indication is acknowledged with appreciation.

III. Claims 37 and 38

Claim 37 depends from claim 16 and claim 38 depends from claim 30. Claims 37 and 38 both recite that the sleeve has two braces that extend out from the same side of the sleeve in the same direction. Claims 37 and 38 also both recite that the at least two braces are part of a bracket, and that an aperture is formed in the bracket between the at least two braces.

An embodiment of a bracket as recited in claims 37 and 38 is illustrated in Figure 3 of the present application. The bracket includes two braces 8 that extend out from the same side of a sleeve 7 in the same direction. As also illustrated in Figure 3, an aperture is formed in the bracket between the braces 8. As explained in the specification at page 6, lines 30-33, a bracket having an aperture as recited in claims 37 and 38 is preferred because a film of deformable material which is laid over top of the bracket can be better attached to an underlying base plate by adhesion achieved through the aperture in the bracket.

The Examiner asserts that the Nam reference discloses such a bracket. More specifically, and as an example, the Examiner asserts that the sensor housing portion 32 of the fixing bracket 30 illustrated in Figure 3 of Nam forms a three-sided aperture. This is the aperture in which a temperature sensor 26 is to be mounted. And this aperture is located between two braces, in the form of the pipe receptacles 34a, 34b and extending flanges 36a, 36b.

To begin with, Appellants note that claims 37 and 38 do not recite that the bracket forms an aperture, but rather than an aperture is formed in the bracket. And in the Nam bracket, there is no aperture formed in the bracket, as is the case with a bracket as illustrated in Figure 3 of the present application. Because Nam's bracket

lacks an aperture formed in the bracket, it is respectfully submitted that the rejection of claims 37 and 38 should be withdrawn.

Further, Appellants note that in rejecting claims 37 and 38 over Nam, the Examiner has taken the position that one of ordinary skill in the art would have found it obvious to modify the bracket disclosed in Figure 3 of Nam so that the pipe receptacles 34a, 34b and flanges 36a, 36b (which correspond to the recited braces) both extend out from the same side of the sensor housing 32 (which corresponds to the recited sleeve) in the same direction. However, once the Nam bracket is modified in this fashion, the aperture formed by the sensor housing portion 32 (the recited sleeve) would no longer be located between the pipe receptacles 34a, 34b and flanges 36a, 36b (the braces), as required by claims 37 and 38. Thus, the very modification made to the Nam bracket that allows one to read a first portion of claims 37 and 38 on the Nam bracket also prevents one from reading a second portion of claims 37 and 38 on the modified Nam bracket. For these additional reasons it is respectfully submitted that the rejection of claims 37 and 38 should be withdrawn.

IV. Conclusion

In view of the foregoing, and in view of the remarks and arguments set forth in Appellants Appeal Brief, it is respectfully submitted that all pending rejections should be withdrawn.

Respectfully submitted,

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